

Thanks to the works of Howe, Freitag, J.-S. Li, and many others, we now have a characterization of the holomorphic Siegel modular forms of degree n that are theta liftings associated with quadratic forms in at most n variables in terms of their Fourier coefficients. We shall review this work and discuss some ideas for studying the case when the number of variables in the quadratic form is greater than n .